# PRINTER RUSH (PTO ASSISTANCE)

Application: 10/078,1  From: R. M. TCH		DO FMF FDC	GAU:	2193		
Tracking #: 10 078,111 Week Date: 7/18/05						
DOC CODE    1449   IDS   CLM   IIFW   SRFW   DRW   OATH   312   SPEC	2/20/02	MISCELL Continuing Foreign Price Document L Fees Other	Data ority			
[RUSH] MESSAGE: PAGE 7, LINE 29, CHARACTER AFTER (-1)?  15 ILLEGIBLE IN THE SPECIFICATION.  DPAGE 63 IS MISSING LINES 1-7 IN THE SPECIFICATION.  THANK YOU						
[XRUSH] RESPONSE:			Rem			
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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

	Atty's Do	cket: ABRAHAM=3			
Ziv ABR Applicat	oplication of:  RAHAM et al  tion No.: 10/078,111  ate: February 20, 2002  ENERATION OF MASK-CONSTRAINED  Da	onfirmation No. 4727 oplication Division ashington, D.C. ate: February 3, 2006			
	RESPONSE TO NOTICE TO FILE CORRE	CTED APPLICATION PAPERS			
Custome Randolp 401 Dula Alexand	tent and Trademark Office er Service Window oh Bullding, Mail Stop <u>Missing Parts</u> lany Street dria, VA 22314	ADDISOTED ADDISOATION			
The pre	esent communication is in response to the "NOTIC	CE TO FILE CORRECTED APPLICATION			
[XX] /	Attached hereto as required by the Notice is/are:  [ ] substitute drawing sheets (Figures [XX] Pages 7 and 63.	) in compliance with 37 C.F.R. §1.84.			
[]	Also attached hereto is/are:  [ ] Preliminary Amendment [ ] An Information Disclosure Statement with F [ ] Other documents:				
	the attioned for an extension of time in accordance with 37 C.F.R. §1.130(a).				
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Serial Number 10/078111

Date Mailed 1/31/06

### NOTICE TO FILE CORRECTED APPLICATION PAPERS

#### Notice of Allowance Mailed

This application has been accorded an Allowance Date and is being prepared for issuance. The application, however, is incomplete for the reasons below.

Applicant is given 30 days from the mail date of this Notice within which to correct the informalities indicated below. A failure to reply will result in the application being ABANDONED. This period for reply is NOT extendable under 37 CFR 1.136 (a) or (b).

- ◆ Page 7 Line 29 character after (-1)? Is illegible in the specification
- ◆ Page 63 is missing lines 1-7 in the specification. Fax legible information to number below or e-mail.
- o For status updates visit <a href="http://pair-direct.uspto.gov">http://pair-direct.uspto.gov</a>. Should you have questions on access to the Private PAIR System, contact the Electronic Business Center (EBC) toll free at 866-217-9197.

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fraction bits to the right of the binary point. Even in implementations where the significand's leading bit (to the left of the binary point) is implied and is not explicitly present, the significand still includes that leading bit. Note that a significand differs from a "mantissa" in that a mantissa includes only the fraction field to the right of the binary point, whereas a significand includes the bit to the left of the binary point. The concept of mantissa may be defined in such a way to include all of the bits of significand, including the leftmost bit and not only the fraction bits. In this case and for a binary normalized significand, the mantissa would simply be the significand shifted one place to the right, or divided by a scaling factor of 2.

#### The Set of Machine Numbers

For purposes of illustration, a non-limiting example of a binary floating-point number system is the IEEE standard 754 previously referenced. We assume that three integer constants are given,  $E_{min}$ ,  $E_{max}$ , p. The machine numbers are those which can be represented in the form  $v = (-1)^s \times 2^E \times b_0 b_1 b_2 \dots b_{p-1}$ , where  $s \in \{0, 1\}$  represents the sign of v. E, representing the exponent of v, is an

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#### Exceptional Case

As previously mentioned, there is an exceptional case where the exponent of  $\underline{a} + \underline{b}$  is smaller by 1 than that of  $\underline{c}$ .

If the tails triplet chosen from Table 6 does not have any superscript it means that even if the generated  $S_c$  is 1.00...0, there is no post-normalization. In this case, the result is correct and acceptable.

If, however, the tails triplet has a superscript and the fixed-point generator produces  $S_c = 1.00...0$  then it means that some thing may be wrong with the result and it is not certain that the produced  $S_a$ ,  $S_b$ , and  $S_c$  satisfy  $S_c = round(2^{-Qa}S_a + 2^{-Qb}S_b)$ , as it should. This is discussed here in further detail.

If the superscript is <sup>0</sup> then the result is definitely wrong and cannot be corrected. In such a case, the result should be discarded and the significands construction should be repeated.

If the superscript is <sup>1</sup>, it means that the result is in fact correct, and should be accepted.

If the superscript is  $^2$ , it means that the  $c_3$  part of the tails should be constructed with care: Note that there are only two tails triplets with a superscript  $^2$ , in the list: They are (0, 1, 1) and (1, 0, 1) in the round to nearest/even mode, with  $C_p = 1$ . Since the resulting  $S_c$  was 1.00...0 it means that the p+1 first bits of the exact sum were 011...1 and that  $c_3$  should be concatenated to the right of this, in order to produce the complete IL 9-2001-0023

In re Appin. No. 10/078,111 Confirmation No. 4727 Atty's Docket: ABRAHAM=3

#### CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

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